

METHODS AND APPARATUS FOR SECURING A HEAT SINK TO A CIRCUIT
BOARD COMPONENT

ABSTRACT OF THE DISCLOSURE

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A heat sink attachment mechanism includes a fastener having an associated compressible member. The fastener defines a flange that, as the fastener secures a heat sink to a circuit board component, is configured to contact a circuit board surface associated with the circuit board component. Contact between the flange and the circuit
10 board minimizes the travel of the fastener relative to the circuit board component and limits the stress generated on the circuit board component or on the solder balls of a ball grid array associated with the circuit boards component by the heat sink. Also, as the fastener secures the heat sink to the circuit board component, the fastener compresses the compressible member against the heat sink, thereby causing the compressible
15 member to expand. Expansion of the compressible member allows the compressible member to absorb changes in the stress applied by the fastener to the heat sink and circuit board component over time.